Mr. John Purdy Scherer Industrial Group, Inc. 940 South West Street Indianapolis, IN 46225

Re: Registration R 097-11868-00331

Dear Mr. John Purdy:

The application from Scherer Industrial Group, Inc., received on March 31, 1998, with additional information received on November 9, 1998 and November 22, 1999, has been reviewed. Based on the data submitted and the new provisions in IAPCB Regulation 2 (Permits), state regulations 326 IAC 2-5.1-2 and 326 IAC 2-5.5, it has been determined that the following electric motors parts machining and surface coating facility, to be located at 940 South West Street, Indianapolis, Indiana, is classified as registered:

a) Building 940:

- (1) Glass bead shot blast booth, Emission Unit ID S940-5;
- (2) Black Beauty slag shot blast booth, Emission Unit ID S940-4;
- (3) Small corn cob shot blast booth, Emission Unit ID S940-6;
- (4) Corn cob shot blast booth, Emission Unit ID S940-49;
- (5) Miscellaneous cleaning (Mineral Spirits, Solvents), Emission Unit ID S940-50;
- (6) Painting spray gun (Graham), Emission Unit ID S940-28;
- (7) Painting-spray cans (Sprayon), Emission Unit ID S940-51;
- (8) Wash dip tank CC-1105), Emission Unit ID S940-52;
- (9) Metallizing spray booth, Emission Unit ID S940-15;
- (10) Space heaters using natural gas, 0.4 MMBtu/hr, Emission Unit IDs S940-31, S940-39;
- (11) Air make-up system (heated) using natural gas, 3.66 MMBtu/hr, Emission Unit ID \$940-25:
- (12) Burn out ovens using natural gas, 1.5 MMBtu/hr, Emission Units IDs S940-10 and S940-23.

b) Building 916:

- (1) Corn cob shot blast booth, Emission Unit S916-8;
- (2) Glass bead shot blast booth, Emission Unit S916-23
- (3) Sand blast, Emission Unit S916-22;
- (4) Painting spray cans (Sprayon), Emission Unit S916-21;
- (5) Painting spray gun (Martin), Emission Unit S916-24;
- (6) Varnish dip tank (9637), Emission Unit S916-26;
- (7) Miscellaneous cleaning (Mineral Spirits, Xylene, ZEP materials), Emission Unit ID S916-25.

The following conditions shall be applicable:

1. 326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6 (Emission Reporting), the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year

and must contain the minimum requirements as specified in 326 IAC 2-6-4.

2. 326 IAC 6-3-2 (Process operations: particulate emission limitations)

Pursuant to this rule, the particulate matter (PM) emissions from the process operations shall be limited according to the equation:

$$E = 4.10 P^{0.67}$$
.

where: E = rate of emission in lb/hr and

P = process weight in ton/hr.

Emissions from the shot blasting units shall not exceed the levels specified in the following table:

Emission Unit ID	Allowable PM Emissions per 326 IAC 6-3-2, lb/hr
S940-4 (Mott)	0.75
S940-5	0.41
S940-6 (South Bend Lathe)	0.55
S940-49 (Clemco)	0.61
S916-8 (Clemco)	0.61
S916-22 (Clemco)	0.47
S916-23 (Trinco)	0.55
Total:	3.95

The Control Equipment of the units S916-8, S916-22, S916-23, S940-4, S940-5, S940-6, and S940-49 shall be in operation at all times when process equipment is in operation.

3. 326 8-3 Organic Solvent Degreasing Operations

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator of the cold cleaning facility shall :

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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- 4. Pursuant to IAPCB Regulation 8-3-1 (Organic Solvent Degreasing Operations) and 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- 5. Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (a) Close the cover whenever articles are not being handled in the degreaser.
 - (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste

solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

- 6. Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), Scherer Industrial Group, Inc. shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing the facility equipment.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The Preventive Maintenance Plan shall be submitted to the Environmental Resources Management Division (ERMD) upon request and shall be subject to review and approval.

7. Pursuant to IAPCB Regulation 2 (Permits) and state regulation 326 IAC 2-5.1-2(f)(3), an authorized individual shall provide an annual notice to the Environmental Resources Management Division and the Office of Air Management that the source is in operation and in compliance with this registration, in the format attached, no later than April 15 of each year at the following addresses:

Compliance Data Section
Office of Air Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015
and

Environmental Resources Management Division Air Quality Management Section, Compliance Data Group 2700 South Belmont Avenue Indianapolis, Indiana 46221-2097

This Registration is the first air approval issued to this source. The source may operate according to IAPCB Regulation 2 (Permits) and state regulation 326 IAC 2-5.5 (Registrations).

Pursuant to 326 IAC 2-6.1-7 (Operating Permit Renewal), this Registration shall expire February ..., 2005. The Permittee shall submit an application to renew this Registration prior to November ..., 2004. An application or notification shall be submitted in accordance with IAPCB Regulation 2 (permits) and state regulation 326 IAC 2 to the ERMD and the Office of Air Management (OAM, IDEM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Please keep this Registration (or a copy) on file at the facility (specified above) available for inspection. Please sign a copy of this letter on the line below and return the copy. The signature acknowledges only that the Registration has been received.

If you have any questions, please contact Mr. Boris Gorlin at (317) 327-2234. Thank you for your time and cooperation in this matter.

Sincerely,

Robert Holm, Ph.D. Administrator

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Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) or 326 IAC 2-5.5-4(a)(3)

Company Name:
Address:
City:
Authorized individual:
Phone #:
Registration #:
I hereby certify that Scherer Industrial Group, Inc. is still in operation and is in compliance with the requirements of Registration R 097-11868-00331 .
Name (typed):
Title:
Signature:
Date:

Indianapolis Environmental Resources Management Division Air Quality Management Section

and

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for Registration

Source Background and Description

Source Name: Scherer Industrial Group, Inc.

Source Location: 940 South West Street, Indianapolis, IN 46225

County: Marion

Construction Permit No.: R 097-11868-00331

SIC Code: **7699**

Permit Reviewer: Boris Gorlin

The Environmental Resources Management Division (ERMD) has reviewed an application from Scherer Industrial Group, Inc., relating to the construction and operation of electric motors parts machining and surface coating, consisting of the following equipment and operations:

a) Building 940:

- (1) Glass bead shot blast booth, Emission Unit ID S940-5;
- (2) Black Beauty slag shot blast booth, Emission Unit ID S940-4;
- (3) Small corn cob shot blast booth, Emission Unit ID S940-6;
- (4) Corn cob shot blast booth, Emission Unit ID S940-49;
- (5) Miscellaneous cleaning (Mineral Spirits, Solvents), Emission Unit ID S940-50;
- (6) Painting spray gun (Graham), Emission Unit ID S940-28;
- (7) Painting-spray cans (Sprayon), Emission Unit ID S940-51;
- (8) Wash dip tank CC-1105), Emission Unit ID S940-52;
- (9) Metallizing spray booth, Emission Unit ID S940-15;
- (10) Space heaters using natural gas, 0.4 MMBtu/hr, Emission Unit IDs S940-31, S940-39:
- (11) Air make-up system (heated) using natural gas, 3.66 MMBtu/hr, Emission Unit ID S940-25;
- (12) Burn out ovens using natural gas, 1.5 MMBtu/hr, Emission Units IDs S940-10 and S940-23.

b) Building 916:

- (1) Corn cob shot blast booth, Emission Unit S916-8;
- (2) Glass bead shot blast booth, Emission Unit S916-23
- (3) Sand blast, Emission Unit S916-22;
- (4) Painting spray cans (Sprayon), Emission Unit S916-21;
- (5) Painting spray gun (Martin), Emission Unit S916-24;
- (6) Varnish dip tank (9637), Emission Unit S916-26;
- (7) Miscellaneous cleaning (Mineral Spirits, Xylene, ZEP materials), Emission Unit ID S916-25.



Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the dust collectors of the following shot blasting units:

- (a) Glass bead shot blast booth, Emission Unit ID S940-5;
- (b) Black Beauty slag shot blast booth, Emission Unit ID S940-4;
- (c) Small corn cob shot blast booth, Emission Unit ID S940-6;
- (d) Sand blast, Emission Unit S916-22;
- (e) Glass bead shot blast booth, Emission Unit S916-23

be considered as an integral part of their operation, because the glass beads, slags, corn cobs and sand used in the shot blasting process, are recirculated; the shot blasting process cannot start and be maintained without these dust collectors.

ERMD has evaluated the justifications and agreed that the listed shot blasting units dust collectors will be considered as an integral part of the (process). Therefore, the permitting level will be determined using the potential to emit after the dust collectors. Operating conditions in the proposed permit will specify that these dust collectors shall operate at all times when the shot blasting units are in operation.

Stack Summary

Stack ID	Operation	Height	Diameter	Flow Rate	Temperature
		(feet)	(feet)	(acfm)	(°F)
S916-8	Shot Blast booth	20	2.5x2.5	300	ambient
S916-21	Painting	No stack			
S916-22	Sand Blast booth	No stack			
S916-23	Shot Blast booth	No stack			
S916-24	Painting	No stack			
S916-25	Miscellaneous Cleaning	No stack			
S916-26	Varnish Dip Tank	No stack			
S940-4	Shot Blast	20	2.2x3.8	450	ambient
S940-5	Shot Blast	20	2.2x3.5	450	ambient
S940-6	Shot Blast	20	2x4	500	ambient
S940-11	Stator Burn-Out	22	0.8	10	ambient
S940-15	Metallizing Spray Booth	24	1.9x1.4	500	ambient
S940-23	Burn Out Ovens	24	1.5	130	170
S940-25	Air Heating	24	4	42,000	170
S940-28	Painting	24	2.75	600	ambient
S940-39	Space Heaters	24	0.3	2	240
S940-9	Shot Blast booth	8	2	1,000	ambient
S940-50	Miscellaneous Cleaning	No stack			
S940-51	Painting	No stack			

S940-52 Wash Dipitank No Stack	S940-52	Wash Dip Tank	No stack			
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Enforcement Issues

ERMD is aware that this source has been constructed and/or operated prior to receipt of the proper permit. ERMD is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Administrator that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 31, 1998, additional information was received on November 9, 1998 and November 22, 1999.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (4 pages).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
Particulate Matter (PM)	1.4
Particulate Matter (PM10)	1.4
Sulfur Dioxide (SO ₂)	0.026
Volatile Organic Compounds (VOC)	24.506
Carbon Monoxide (CO)	0.908
Nitrogen Oxides (NO _x)	4.322
Single Hazardous Air Pollutant (HAP)	0.570
Combination of HAPs	4.894

- (a) Potential emissions of PM/PM10 from the shot blasting operations were determined using AP-42 emission factors; for Emission Units IDs S940-5, S940-4, S940-6, S916-22, and S916-23 after control as integral part of the technological process, for the other Emission Units before control:
- (b) Potential emissions of PM/PM10, SO₂, VOC, CO, NOx, HAP from natural gas combustion were determined using the AP-42 emission factors; potential emissions of VOC and HAP

- from surface coating operations using manufacturer specifications and maximum usage of the coatings used.
- (c) Potential emissions of VOC are greater than 10 tons per year and less than 25 tons per year. Therefore, pursuant to IAPCB Regulation 2 and 326 IAC, 2-5.5-1, a Registration is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Marion County has been classified as attainment or unclassifiable for PM, SO₂, VOC, CO. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.4
PM10	1.4
SO ₂	0.026
VOC	24.506
CO	0.908
NO _x	4.322
Single HAP	0.570
Combination HAPs	4.894

(a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) and National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63) applicable to this facility.

40 CFR Part 63, Subpart T (NESHAP for Halogenated Solvent Cleaning) is not applicable to this source because none of the halogenated HAPs listed will be used as solvents.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source has potential to emit more than 10 tons/yr of VOC and is located in Marion County. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 6-3-2 (Process operations: particulate emission limitations)

This facility is subject to this rule as a particulate emission source located in the state of Indiana.

The particulate matter (PM) emissions from the process operations shall be limited according to the equation:

$$E = 4.10 P^{0.67}$$
,

where: E = rate of emission in lb/hr and P = process weight in ton/hr.

PM emissions of the shot blasting units shall not exceed the Allowable PM Emissions levels specified in the following table:

Emission Unit ID	Allowable PM Emissions per 326 IAC 6-3-2, lb/hr	Potential PM Emissions after Control, lb/hr
S940-4 (Mott)	0.75	0.034
S940-5	0.41	0.033
S940-6 (South Bend Lathe)	0.55	0.039
S940-49 (Clemco)	0.61	0.040
S916-8 (Clemco)	0.61	0.040
S916-22 (Clemco)	0.47	0.151
S916-23 (Trinco)	0.55	0.039
Total:	3.95	0.377

Potential PM emissions after control are less than allowable emissions; therefore, this source will

be in compliance with this rule.

The Control Equipment of the units S916-8, S916-22, S916-23, S940-4, S940-5, S940-6, and S940-49 shall be in operation at all times when process equipment is in operation.

326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities)

This source is not subject to 326 IAC 8-1-6 since potential emissions of VOC are less than 25 tons per year.

326 IAC 8-2 (Surface Coating Emission Limitations)

This source is not subject to 326 IAC 8-2 since no operations and metal parts coating types listed in this rule will be performed, and it does not fall under any of the industrial categories (by SIC code) listed in 326 IAC 8-2-9(a)(5).

326 IAC 8-3 (Organic Solvent Degreasing Operations)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator of the cold cleaning facility shall :

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Pursuant to IAPCB Regulation 8-3-1 (Organic Solvent Degreasing Operations) and 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.

- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

- (a) Close the cover whenever articles are not being handled in the degreaser.
- (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 189 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Environmental Resources Management Division (ERMD) Construction Permit Application Form Y.

(a) This new source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.

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(b) See attached spreadsheets for detailed air toxic calculations.

Conclusion

The construction and operation of this electric motors parts machining and surface coating facility will be subject to the conditions of the attached proposed **Registration R 097-11868-00331**.